

City of Mesa Annual Fatal Crash Analysis 2012

Transportation Department
Traffic Studies Group



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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION AND BACKGROUND

The **2012 Fatal Crash Analysis** is a statistical review of the 24 fatal crashes that occurred on the City of Mesa streets in 2012. It focuses on vehicle crashes involving fatalities identified in the 2012 Police Accident Reports (PARs) investigated and reported by the City of Mesa Police Department. Crashes occurring on the Superstition Freeway (US 60), the Price Freeway (Loop 101), the Red Mountain Freeway (Loop 202), and the Santan Freeway (Loop 202), which are under the jurisdiction of the Arizona Department of Public Safety, were not included in the analysis.

The database used to prepare this report was compiled and maintained by the Traffic Records Section of the Arizona Department of Transportation in conjunction with the crash database maintained by the City of Mesa Traffic Studies Group. Definitions and terms were extracted from the Arizona Crash Report Forms Instruction Manual, 9th Edition, dated 2010.

The purpose of analyzing fatal traffic crashes is to better understand the underlying causes of fatal crashes. Analysis of the crashes reveals facts about the types of streets where crashes happened, operator behavior, the times of day and year crashes occur, age, and gender of parties involved in fatal crashes. Once an understanding of the root causes of fatal crashes is gained, the Transportation Department can do further analysis to determine if the traffic environment in the City of Mesa can be made safer. Analysis of fatal crashes also helps in developing appropriate messages for educating the public.

Percentages shown may total more or less than 100% due to rounding.

National statistics contained in this report were obtained from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia. Unless otherwise stated, statistics are from the calendar year 2012.

Questions or comments concerning this report should be directed to City of Mesa:

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Telephone: 480.644.2160
Email: transportation.info@Mesaaz.gov

1.2 FACTS AND FIGURES

- 🚗 In 2012 there were 24 fatal crashes resulting in 24 fatalities.
- 🚗 Fatal crashes decreased in frequency from 27 in 2011 to 24 in 2012.
- 🚗 Mesa's fatal motor vehicle crashes per 100,000 population was 5.1 which was below the national average of 10.8.
- 🚗 Fatal crashes were located on arterial streets in 75.0% of all fatal crashes.

- 🚗 Mid-block crashes accounted for 62.5% of all fatal crashes.
- 🚗 Males were the victims in 79.2% of all fatal crashes.
- 🚗 When normalized, the “55 to 59” age group had the highest over-representation of all age groups at 1.59 fatalities per 10,000 population.
- 🚗 Pedestrian and pedalcycle crashes accounted for 41.7% of all fatal crashes.
- 🚗 There were five motorcycle crashes that accounted for 20.8% of all fatal crashes.
- 🚗 Pedestrian crashes were the most frequent fatal crash manner at 33.3% of all fatal crashes.
- 🚗 Alcohol or drugs were involved in 21.9% of all fatal crashes.
- 🚗 March had the highest number of crashes in a month at 25.0% of all fatal crashes.
- 🚗 Tuesday had the most frequent crashes by day of week at 19.1% of all fatal crashes.
- 🚗 The hours of 2:01 PM to 8:00 PM had the highest fatal crash frequency over the last five years at 43.6% of all fatal crashes.

1.3 DEFINITIONS

Angle. A front to side collision, other than left turn, where two motor vehicles approaching from an angle collide; usually resulting in a “T-bone” crash.

Delayed Fatality. Any crash fatality where the victim died after the investigation was completed. State and federal guidelines allow a delayed fatality up to 30 days from the time listed in the report where death was due to causes related to the crash.

Fatal Injury. Any injury that results in death within 30 – 24 hour time periods after the crash occurred.

Intersection Related Crash. Location of the crash next to an intersection, on the approach to or the exit from an intersection, and results from an action related to the movement of traffic units through the intersection. In the State of Arizona this distance is normally defined as 150 feet; on the approach to an intersection; unless, specifically stopped in traffic at a red light where traffic was backed up and the crash was related to the traffic stopped for traffic signal (example: rear end collision).

Left Turn. Two motor vehicles traveling in opposite directions, prior to the crash, where at least one vehicle is making a left turn.

Pedalcycle. Any non-motorized vehicle propelled by pedaling. Includes bicycle, tricycle, unicycle, pedal car, etc.

Pedestrian. Any person who is not an occupant of a motor vehicle in transport. Includes a person who is adjacent to the motor vehicle regardless of his/her actions. NOTE: If an occupant falls from a vehicle and is struck by his/her own vehicle this is not a collision with a pedestrian.

Rear End. A front to rear crash where the front of one motor vehicle impacts the rear of another motor vehicle.

Roadway. The part of the trafficway which includes the roadway and the shoulder alongside the roadway.

Traffic Unit. A traffic unit is a vehicle, pedestrian, pedalcyclist, or rider on an animal involved in a motor vehicle traffic accident. Traffic unit number is used as an identifier for each involved unit (i.e. U1, U2, U3, etc). It is preferred that police jurisdictions assign traffic unit number 1 (U1) to the vehicle, pedestrian, pedalcyclist, or animal rider causing the collision, however, this procedure is not mandatory.

2.0 TRENDS

2.1 FIVE YEAR CRASH TREND – MESA

The number of fatal crashes has fluctuated over the past five years with a high of 27 in 2011 and a low of 15 in 2010. The 24 fatal crashes recorded in 2012 were higher than the five-year average of 22.0.

Normalization gives perspective on an increase or decrease in the number of fatal crashes when there is a concurrent rise in the number of motor vehicles, cyclists, and pedestrians due to population growth (and a consequent increase in opportunities for fatal vehicle conflicts). The number of fatal crashes is normalized by looking at how many fatal crashes occur per every 100,000 people in Mesa's population in a given year. In 2012 the normalized fatal crash value was 5.1, which decreased from 6.2 in 2011.

TABLE 1: FATAL CRASHES - FIVE YEAR TREND

Year	Number of Fatal Crashes	Number of Fatalities	Number of Total Vehicle Crashes	Estimated Population*	Fatalities Per 100,000 Population	Fatalities per 100,000 Population Percent Change From Yearly Average
2008	25	26	5,908	464,465	5.6	13.8%
2009	19	21	5,504	466,325	4.5	-8.5%
2010	15	15	5,118	467,912	3.2	-35.0%
2011	27	29	5,178	468,012	6.2	26.0%
2012	24	24	5,134	468,012	5.1	3.7%
Average	22.0	23.0	5,368	466,945	4.9	-

*Population estimates provided by the City of Mesa Planning Department, as of January 2011.

Trendlines are used to graphically display trends in data and to analyze problems of prediction. The trendlines shown in Charts 1 and 2 are a best-fit straight line that is used with simple linear data sets. A linear trendline usually shows that something is increasing or decreasing at a steady rate. The trendline for fatal crashes shows no significant change over the past five years. The trendline for total vehicle crashes shows a decrease over the past five years.

CHART 1: TOTAL NUMBER OF FATAL CRASHES

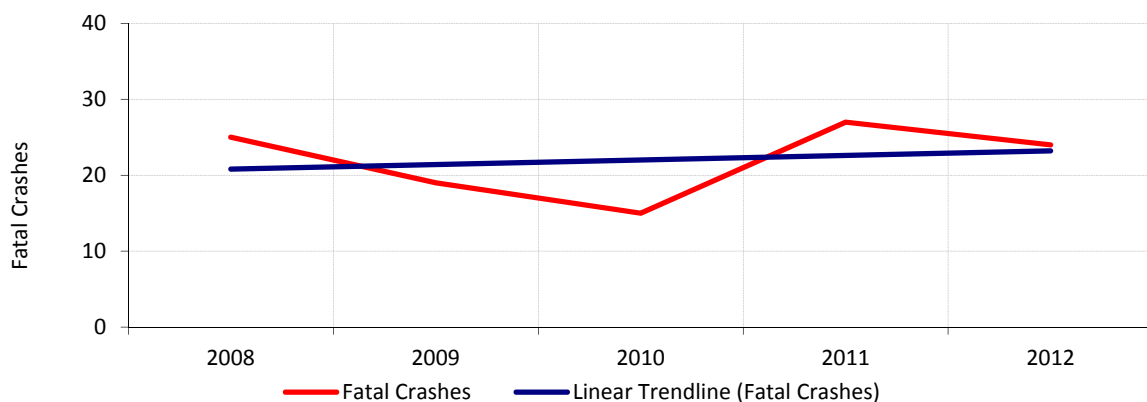
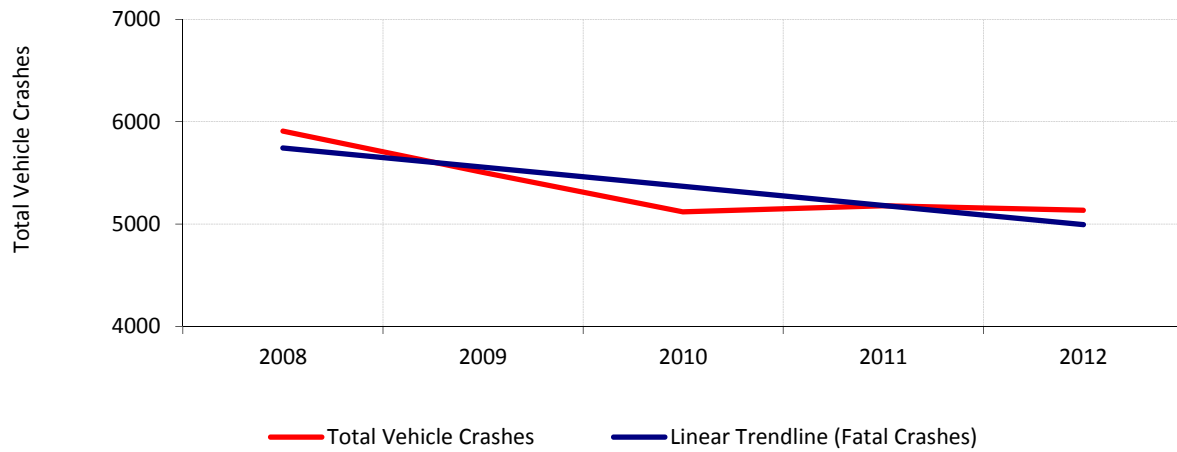


CHART 2: TOTAL NUMBER OF ALL VEHICLE CRASHES



2.2 NATIONAL COMPARISON

Mesa has experienced a general downward trend in fatalities over the past ten years with a distinct spike in 2005 and 2006. The U.S. Department of Transportation, National Center of Statistics & Analysis, figure indicates a 4.0% increase in fatalities from 2011 to 2012. Nationally, there has been an overall decline in fatalities over the past 10 years.

CHART 3: MESA TOTAL FATALITIES

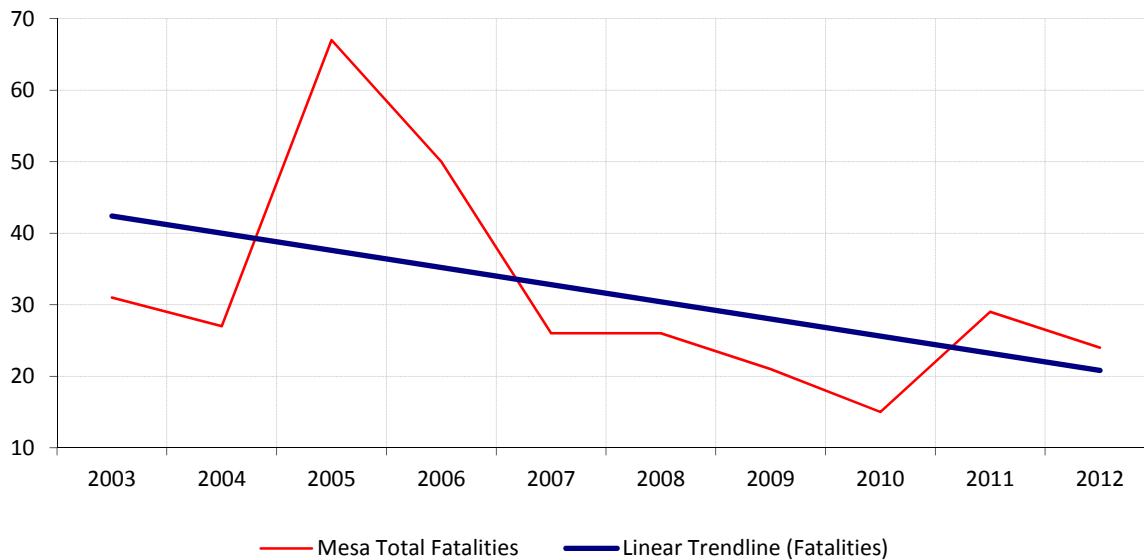
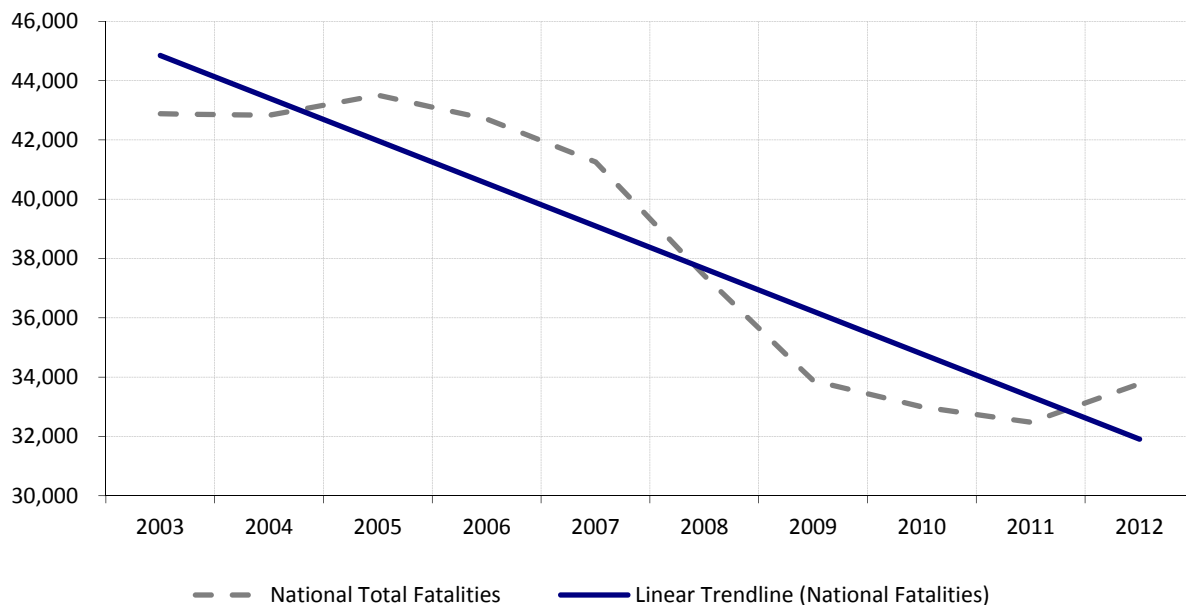


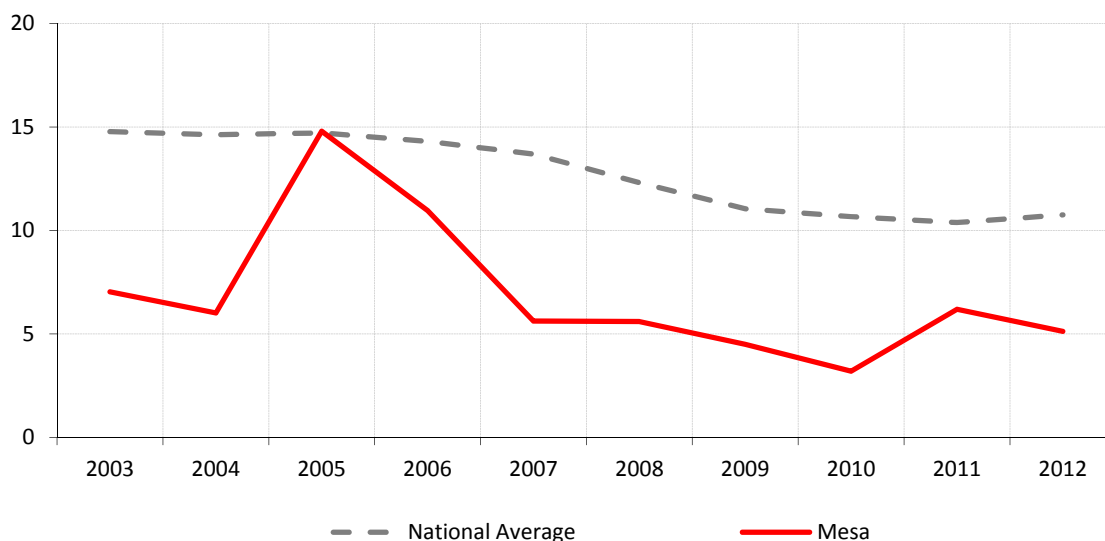
CHART 4: NATIONAL TOTAL FATALITIES



2.3 TEN YEAR CRASH TREND – MESA and NATIONAL AVERAGE

Mesa has consistently experienced fewer annual normalized fatalities per 100,000 population than the national average. Nationally, fatalities per 100,000 population was 10.8 in 2012 which increased from 10.4 in 2011. Mesa experienced 5.1 fatalities per 100,000 population in 2012 which decreased from 6.2 in 2011.

CHART 5: FATALITIES PER 100,000 POPULATION - MESA and NATIONAL AVERAGE



Updated 7/28/2015

3.0 LOCATION

3.1 STREET CLASSIFICATION

Arterial streets are roadways that often extend across city boundaries, carry large volumes of traffic, and may have limited access to properties along the roadway. Broadway Road and Power Road are examples of arterial streets.

Collector streets are roadways that collect and carry traffic between local and arterial streets and can provide access to abutting properties. McLellan Road and Horne are examples of collector streets.

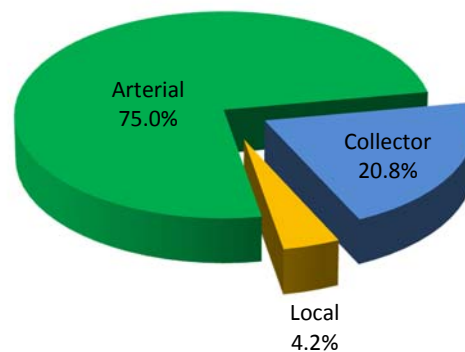
Local or residential streets are low volume streets in residential and commercial areas.

Of the 24 fatal crashes, 75.0% occurred on arterial streets. Because of higher speeds, higher volumes of traffic and greater widths associated with arterial roadways, a greater potential for fatal injuries exists on arterial streets.

TABLE 2: FATAL CRASHES BY TYPE OF ROADWAY

Type of Roadway	Number of Fatal Crashes	Percent of Total Fatal Crashes
Arterial	18	75.0%
Collector	5	20.8%
Local	1	4.2%
Total	24	100.0%

CHART 6: FATAL CRASHES BY TYPE OF ROADWAY



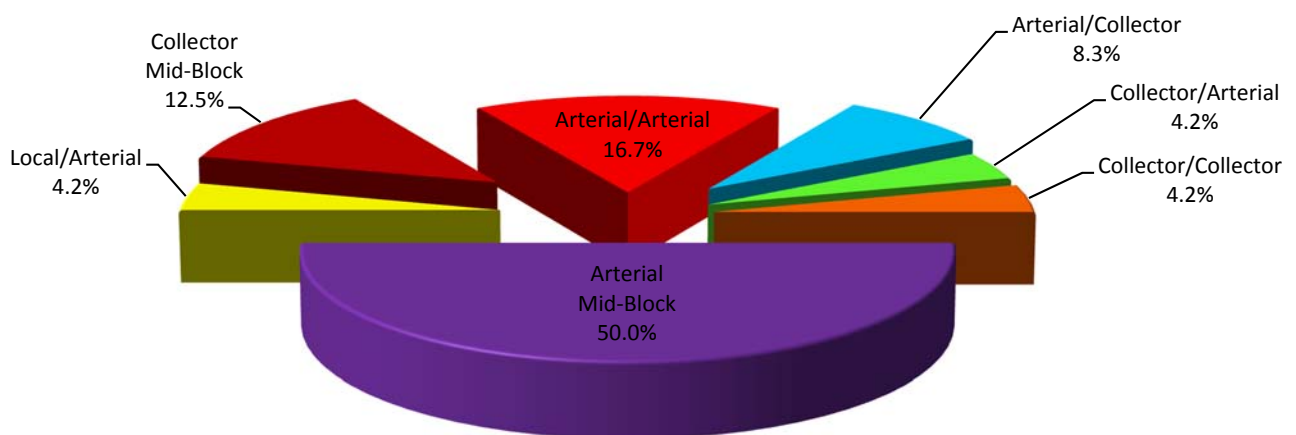
3.2 INTERSECTION CLASSIFICATION

Of the nine intersection related crashes, eight occurred at intersections having at least one approach classified as an arterial street. Intersection related crashes accounted for 37.5% of all fatal crashes. Mid-block fatal crashes occurring on arterials accounted for 50.0% of all fatal crashes. As previously stated, because of higher speeds, higher volumes of traffic, and wider roadways associated with arterials the potential for a higher frequency of fatal injuries exists.

TABLE 3: CLASSIFICATION OF INTERSECTIONS

Intersection Related	Number of Fatal Crashes	Percent of Total Fatal Crashes
Arterial/Arterial	4	16.7%
Arterial/Collector	2	8.3%
Collector/Arterial	1	4.2%
Collector/Collector	1	4.2%
Local/Arterial	1	4.2%
Total Intersection	9	37.5%
Mid-Block Related	Number of Fatal Crashes	Percent of Total Fatal Crashes
Arterial Mid-Block	12	50.0%
Collector Mid-Block	3	12.5%
Total Mid-Block	15	62.5%
Total Intersection and Mid-Block Related	24	100%

CHART 7: CLASSIFICATION OF INTERSECTIONS



3.3 GEOGRAPHIC LOCATION

2012 Fatal Crash Locations. The occurrence of a crash is an unpredictable event that can occur when there is a failure in the roadway, motor vehicle, or motor vehicle driver. The probability that a crash will occur and cause a fatal injury is very low especially when considering a specific location. Due to the very low probability that fatal crashes will regularly occur at a specific location, fatal crashes are considered random events. While fatal crashes are considered random events there are general areas of the city that have higher concentrations of fatal crashes. Southern Avenue experienced four fatal crashes and Stapley Drive, Brown Road, University Drive, Baseline Road, and Guadalupe Road each had two. A comparison of the number of crashes per mile was also conducted showing Stapley Drive with 0.26 crashes per mile and Southern Avenue at 0.24. The 2012 Fatal Crash Locations map is contained in the appendix.

2008 – 2012 Fatal Crash Locations. There have been a total of 110 fatal crashes during the five year period from 2008 to 2012. McKellips Road had the highest frequency of fatal crashes with 13 crashes, followed by University Drive with ten, and Southern Avenue at nine. A comparison of the number of crashes per mile was also conducted showing McKellips Road with 0.82 fatal crashes per mile, followed by Alma School Road with 0.70, and University Drive at 0.68. The 2008-2012 Fatal Crash Locations map is contained in the appendix.

4.0 DEMOGRAPHICS

4.1 GENDER AND AGE

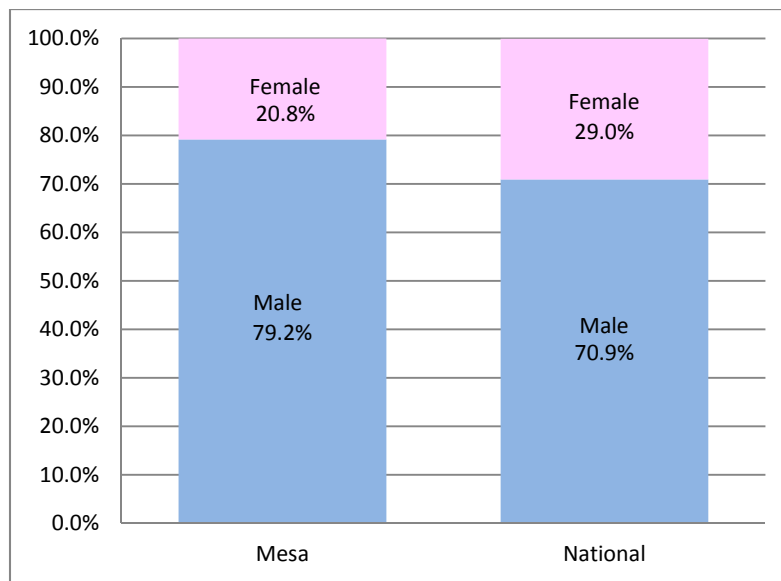
Certain groups of individuals, defined by gender and age, have a greater probability of being involved in fatal crashes.

GENDER. Males consistently had a much greater fatality rate than females in crashes. Males comprise 49.5% of Mesa's population, but were involved in 79.2% of all fatal crashes. The national percentage of male crash fatalities in 2012 was 70.9%.

TABLE 4: GENDER OF VICTIMS

Gender	Percent of Estimated Population	Number of Fatalities	Percent of Total Fatalities
Male	49.5%	19	79.2%
Female	50.5%	5	20.8%
Total	100%	24	100%

CHART 8: GENDER OF VICTIMS



AGE. When the number of crashes is normalized by looking at how many fatalities occur per every 10,000 people in each age group, the most over-represented age group is the 55-59 year-olds. See last column in Table 5. One 55-59 year old victim was the driver of unit 1, one was the driver of unit 2, one pedestrian unit 1, and one pedalcyclist unit 1. The second highest over represented age group was the over 75 year-olds.

CHART 9: AGE OF VICTIMS

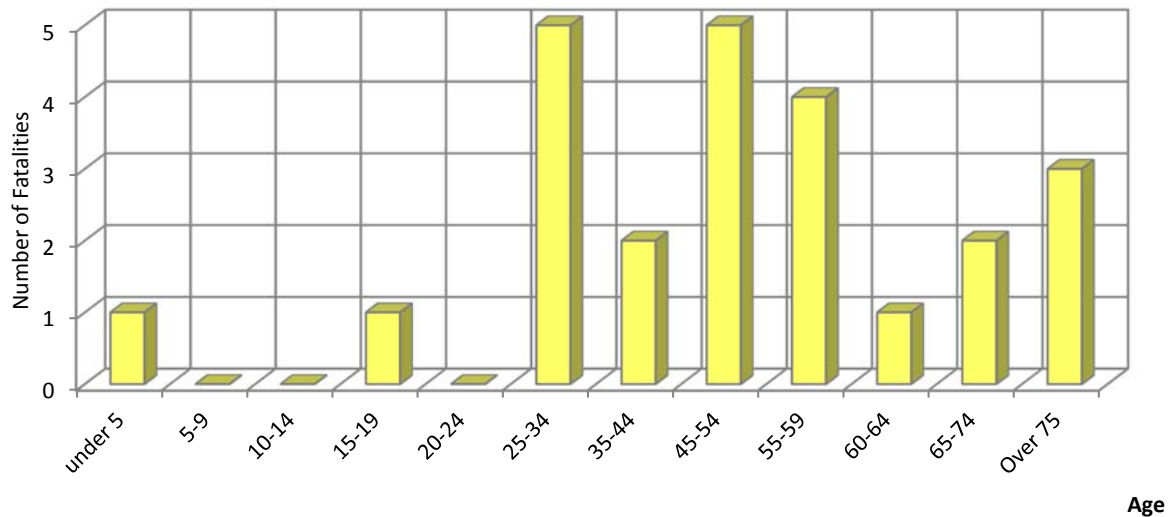
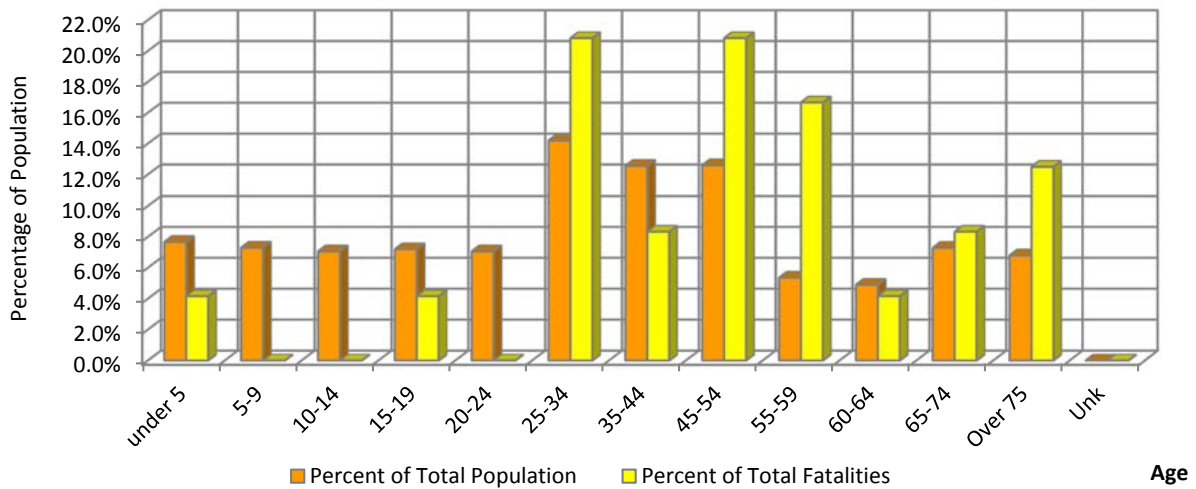


TABLE 5: AGE OF VICTIMS

Age	Population*	Percent of Total Population	Number of Fatalities	Percent of Total Fatalities	Fatalities per 10,000 Population
Under 5	35,897	7.7%	1	4.2%	0.28
5 - 9	34,165	7.3%	-	0.0%	-
10 - 14	33,042	7.1%	-	0.0%	-
15 - 19	33,697	7.2%	1	4.2%	0.30
20 - 24	33,042	7.1%	-	0.0%	-
25 - 34	66,458	14.2%	5	20.8%	0.75
35 - 44	58,782	12.6%	2	8.3%	0.34
45 - 54	58,970	12.6%	5	20.8%	0.85
55 - 59	25,085	5.4%	4	16.7%	1.59
60 - 64	22,933	4.9%	1	4.2%	0.44
65 - 74	34,118	7.3%	2	8.3%	0.59
Over 75	31,825	6.8%	3	12.5%	0.94
Unknown	-	-	-	-	-
Total	468,012	100.0%	24	100.0%	

*Estimated population information provided by the City of Mesa Planning Division.

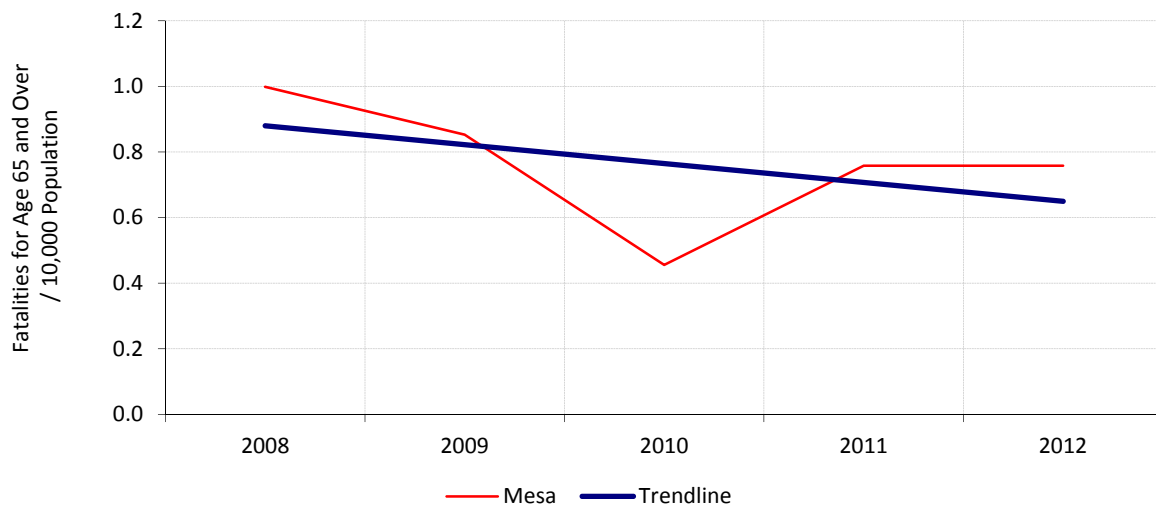
CHART 10: PERCENTAGE OF POPULATION and PERCENTAGE OF FATALITIES



4.2 ELDERLY DRIVERS

ELDERLY DRIVERS. The number of older drivers in the United States is expected to double over the next 30 years. As people age, a decline in sensory, cognitive, or physical functioning may make them less safe drivers, as well as more vulnerable to injury in a crash. Older Americans depend on automobiles for meeting their transportation needs and as Mesa's population continues to grow, it is expected that the number of older drivers on our roads will increase. While the number of elderly drivers is expected to increase in the future, the current fatality trend for drivers 65 and over is generally decreasing in Mesa.

CHART 11: ELDERLY DRIVER FATALITIES



5.0 ANALYSIS

5.1 TRAFFIC UNIT TYPE

For the purposes of this analysis, the traffic unit types have been divided into four categories: Motor Vehicle, Motorcycle, Pedalcycle, and Pedestrian. Over the past five years the crash frequency of each unit type has generally fluctuated.

Table 7 and Chart 13 show the distribution of total fatalities by traffic unit type. In Mesa during 2012, combined motor vehicle and motorcycle fatalities comprised 58.3% of all fatal crashes and 82.9% of national fatalities. There were eight pedestrian and two fatal pedalcycle crashes in 2012.

TABLE 6: TRAFFIC UNIT TYPE - FIVE YEAR HISTORY

Unit Type / Year	Number of Fatal Crashes 2008	Number of Fatal Crashes 2009	Number of Fatal Crashes 2010	Number of Fatal Crashes 2011	Number of Fatal Crashes 2012
Motor Vehicle	14	11	7	15	9
Motorcycle	4	4	3	5	5
Pedestrian	7	4	2	5	8
Pedalcycle	-	2	3	2	2
Total	25	21	15	27	24

CHART 12: TRAFFIC UNIT TYPE - FIVE YEAR HISTORY

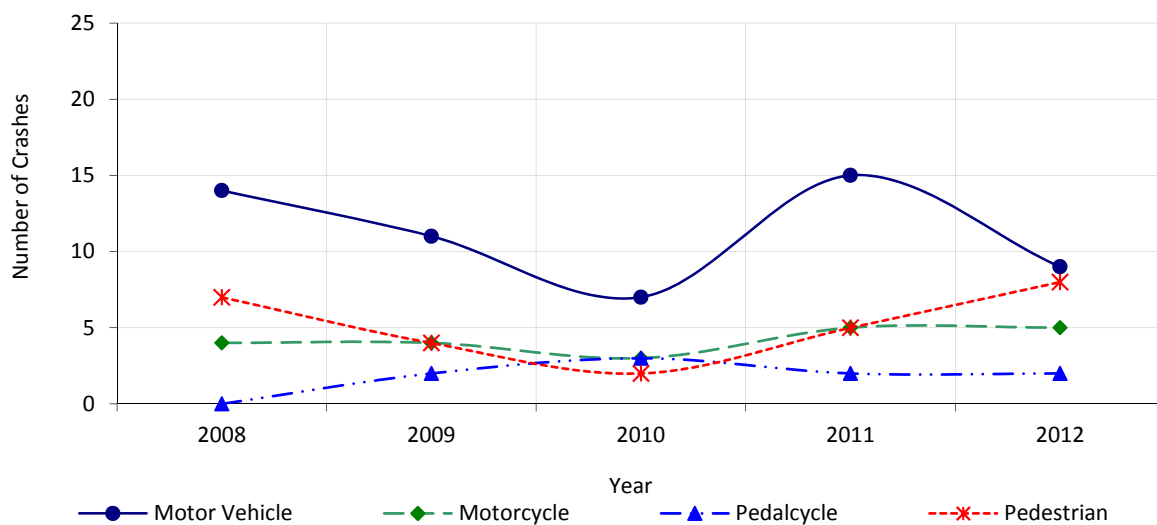
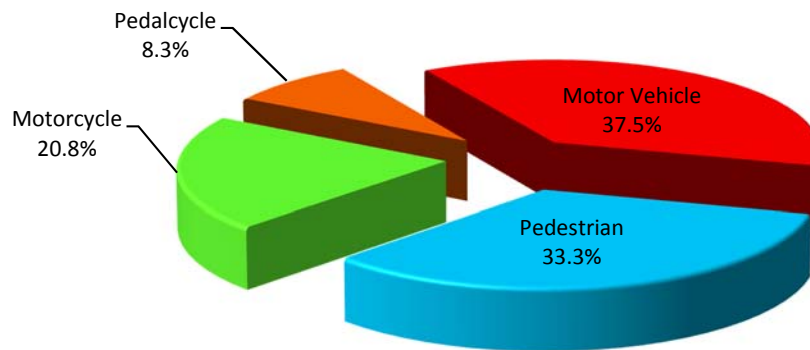


TABLE 7: TRAFFIC UNIT TYPE - TOTAL FATALITIES

Traffic Unit Type	Number of Fatal Crashes	Percent of Total Fatal Crashes	2012 National Percentage of Fatal Crashes
Motor Vehicle	9	37.5%	68.1%
Motorcycle	5	20.8%	14.8%
Pedestrian	8	33.3%	14.3%
Pedalcycle	2	8.3%	2.2%
Unknown	0	0.0%	0.7%
Total Fatalities	24	100.0%	100.0%

CHART 13: TRAFFIC UNIT TYPE - TOTAL FATALITIES



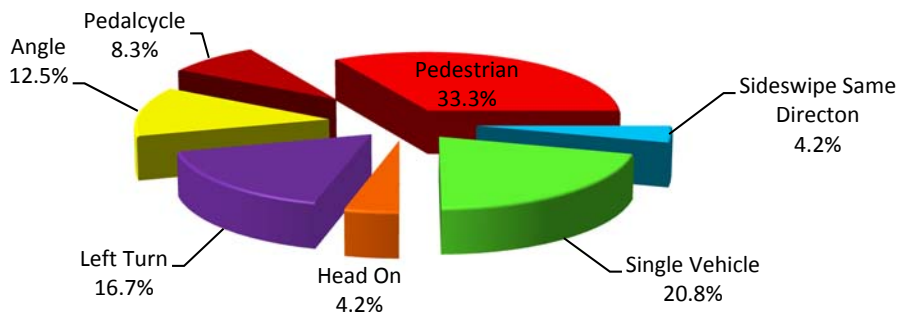
5.2 CRASH MANNER

In 2012, 33.3% of all fatal crashes were pedestrian crashes followed by single vehicle crashes at 20.8%. In 2011, single vehicle crashes were the most frequent fatal crash type followed by pedestrian and angle.

TABLE 8: CRASH MANNER

Crash Manner	Number of Fatal Crashes	Percent of Total Fatal Crashes
Pedestrian	8	33.3%
Single Vehicle	5	20.8%
Left Turn	4	16.7%
Angle	3	12.5%
Pedalcycle	2	8.3%
Head On	1	4.2%
Sideswipe Same Direction	1	4.2%
Total	24	100%

CHART 14: MANNER OF COLLISION



5.3 CONTRIBUTING FACTORS

In the Police Accident Reports, the unit causing the crash or the unit most at fault is identified as unit 1 as outlined in the *Arizona Crash Report Forms and Instruction Manual*. The table and chart below break out the 2012 crashes by the contributing factors from the PARs.

5.3.1 VIOLATION/BEHAVIOR – ALL UNITS

Fatal crashes involving one or both of the drivers drinking alcohol or using illicit drugs was the leading contributing factor with 21.9%. Did not use crosswalk was the second most frequent contributing factors at 18.8%.

TABLE 9: CAUSE OF CRASH - VIOLATION/BEHAVIOR - ALL UNITS

Contributing Factor*	Number of Fatal Crashes	Percentage of Total Contributing Fatal Crash Factors
Had Been Drinking Alcohol/Use of Illicit Drugs	7	21.9%
Did Not Use Crosswalk	6	18.8%
Disregarded Traffic Signal	4	12.5%
Failed to Yield Right-of-Way	4	12.5%
Made Improper Turn	2	6.3%
Speed Too Fast For Conditions	2	6.3%
Drove/Rode in Opposite Traffic Lane	1	3.1%
Exceeded Lawful Speed	1	3.1%
Failed To Keep In Proper Lane	1	3.1%
No Improper Action	1	3.1%
Unknown	1	3.1%
Unsafe Lane Change	1	3.1%
Illness	1	3.1%
Total	32	100.0%

*One fatal crash can have more than one contributing factor and/or both units can contribute to a crash.

5.3.2 ALCOHOL AND DRUGS AS CONTRIBUTING FACTORS

Alcohol or drugs were a contributing factor in 29.2% of all fatal crashes. The percentage of 2012 fatal crashes involving possible alcohol or drug involvement was lower than the five year average of 38.1%.

TABLE 10: ALCOHOL/DRUGS AS CONTRIBUTING FACTORS

Violation of Unit Causing or Most at Fault in a Crash	Number of Fatal Crashes	Number of Fatal Crashes Alcohol / Drugs Involved	Percent of Total Fatal Crashes Alcohol / Drugs Involved
Did Not Use Crosswalk	6	3	12.5%
Disregarded Traffic Signal	4	1	4.2%
Failed to yield Right-of-Way	4	1	4.2%
Made Improper Turn	2	-	-
Speed Too Fast For Conditions	2	1	4.2%
Drove/Rode in Opposite Traffic Lane	1	-	-
Exceeded Lawful Speed	1	-	-
Failed To Keep In Proper Lane	1	-	-
No Improper Action	1	1	4.2%
Unknown	1	-	-
Unsafe Lane Change	1	-	-
Total	24	7	29.2%

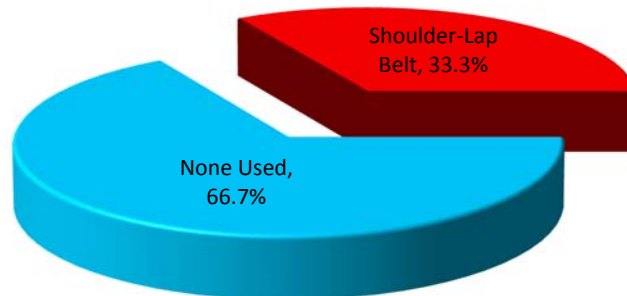
TABLE 11: ALCOHOL/DRUGS - FIVE YEAR TREND

Year	Number of Fatal Crashes	Number of Fatal Crashes Alcohol / Drugs Involved	Percent of Total Fatal Crashes Alcohol / Drugs Involved
2008	25	10	40.0%
2009	19	6	31.6%
2010	15	4	26.7%
2011	27	17	63.0%
2012	24	7	29.2%
Average	22.0	8.8	38.1%

5.3.3 SAFETY DEVICE USAGE

VICTIM RESTRAINT USAGE. There were nine fatal crashes resulting in nine fatalities where the victims could have utilized a restraint safety device in a motor vehicle. The occupant receiving fatal injuries was utilizing a restraint safety device in three of the nine fatalities. The remaining fatal injury victims were either on motorcycles, pedalcycles, or were pedestrians.

CHART 16: VICTIM RESTRAINT USAGE



MOTORCYCLE HELMET USAGE. The motorcycle driver was not wearing a helmet in four of the five fatal motorcycle crashes that occurred.

PEDALCYCLE HELMET USAGE. The pedalcyclist was not wearing a helmet in either of the two fatal pedalcycle crashes.

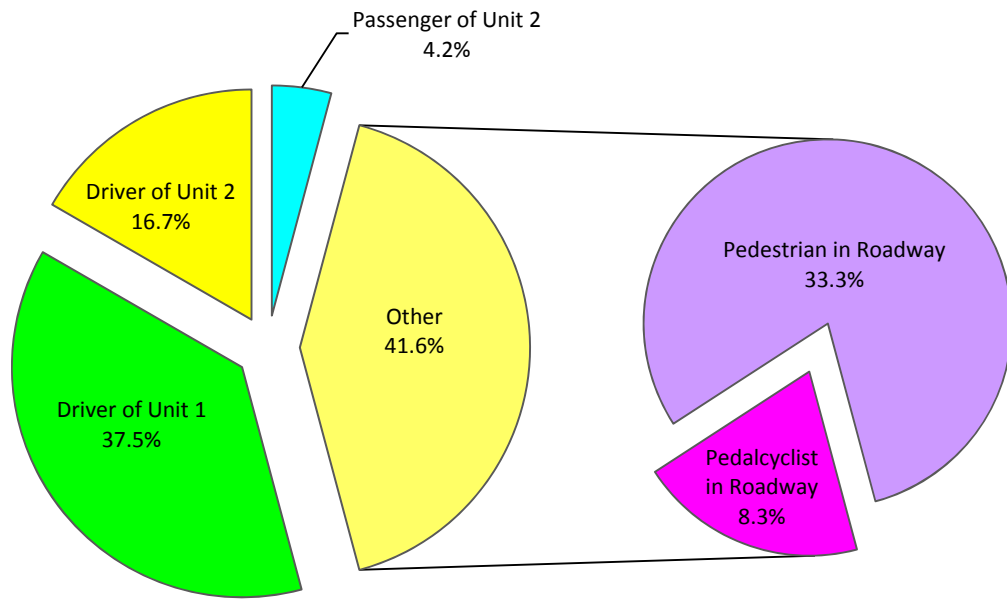
5.4 LOCATION OF VICTIM

The driver of the unit most at fault, unit 1, had the highest frequency of fatalities among the 24 fatalities.

TABLE 12: LOCATION OF VICTIM

Location of victim	Number of Fatalities	Percentage of Total Fatalities
Driver of Unit 1	9	37.5%
Driver of Unit 2	4	16.7%
Passenger of Unit 2	1	4.2%
Pedalcyclist in Roadway	2	8.3%
Pedestrian in Roadway	8	33.3%
Total	24	100%

CHART 15: LOCATION OF VICTIM



6.0 HISTORY

6.1 MONTH – FIVE YEAR HISTORY

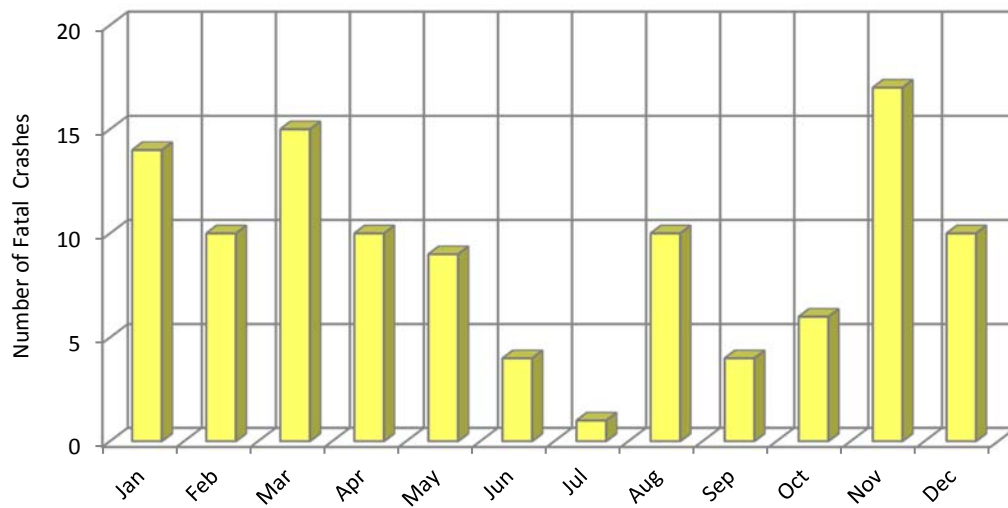
March had the highest number of crashes in 2012; six fatal crashes.

TABLE 13: MONTH - FIVE YEAR HISTORY

Month / Year	2008	2009	2010	2011	2012	Total	% of Total Fatal Crashes
January	1	5	3	1	4	14	12.7%
February	3	2	2	2	1	10	9.1%
March	3	2	2	2	6	15	13.6%
April	2	2	2	3	1	10	9.1%
May	2	-	3	2	2	9	8.2%
June	1	-	-	2	1	4	3.6%
July	-	1	-	-	-	1	0.9%
August	1	-	2	4	3	10	9.1%
September	2	-	-	1	1	4	3.6%
October	2	1	1	1	1	6	5.5%
November	6	3	-	6	2	17	15.5%
December	2	3	-	3	2	10	9.1%
Total	25	19	15	27	24	110	100.0%

0 = Month with highest frequency of fatal crashes.

CHART 17: MONTH - FIVE YEAR HISTORY



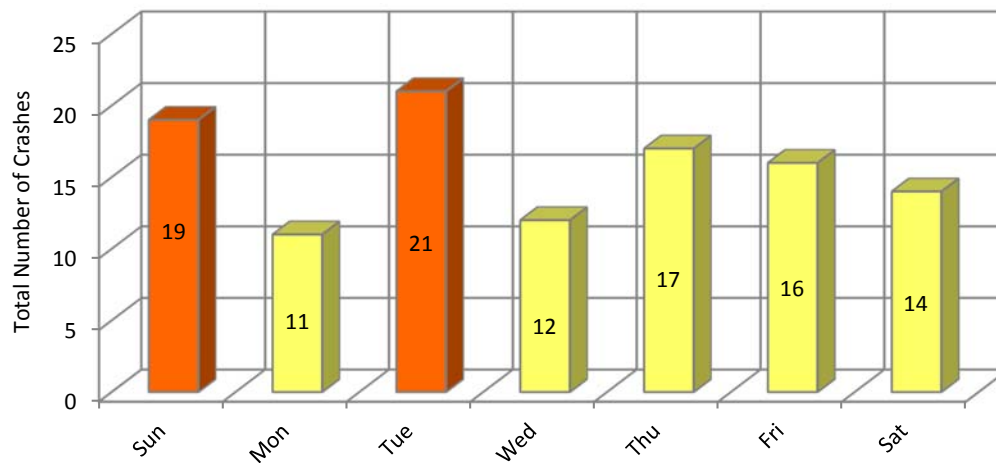
6.2 DAY – FIVE YEAR HISTORY

Nationally, Friday through Sunday has historically experienced the highest frequency of fatal crashes by day of week over the past five years. In Mesa Tuesday had the most frequent day of week crashes with 19.1% followed by Sunday with 17.3%.

TABLE 14: DAY - FIVE YEAR HISTORY

Year / Day	Number of Fatal Crashes 2008	Number of Fatal Crashes 2009	Number of Fatal Crashes 2010	Number of Fatal Crashes 2011	Number of Fatal Crashes 2012	Total Number of Fatal Crashes	Percent of Total Fatal Crashes
Sunday	3	4	1	5	6	19	17.3%
Monday	1	1	1	4	4	11	10.0%
Tuesday	6	4	5	4	2	21	19.1%
Wednesday	1	5	2	3	1	12	10.9%
Thursday	4	4	0	4	5	17	15.5%
Friday	4	1	3	3	5	16	14.5%
Saturday	6	0	3	4	1	14	12.7%
Total	25	19	15	27	24	110	100.0%

CHART 18: DAY - FIVE YEAR HISTORY



6.3 TIME – FIVE YEAR HISTORY

TIME OF DAY. The number of cars and trucks on Mesa’s streets at any given time of the day has a direct correlation to the likelihood of being involved in a fatal traffic crash. Weekday evening “rush hours” continue to have the highest frequency of fatal crashes. During the past five years, 43.6% of all fatalities have occurred within the hours from 2:01 PM - 8:00 PM.

TABLE 15: TIME - FIVE YEAR HISTORY

Hour / Year	2008	2009	2010	2011	2012	Total	% of Total Fatal Crashes
00:01 AM - 01:00 AM	1	1	1	1	1	5	4.5%
01:01 AM - 02:00 AM	1	1	1	-	-	3	2.7%
02:01 AM - 03:00 AM	-	1	1	1	-	3	2.7%
03:01 AM - 04:00 AM	-	-	-	2	-	2	1.8%
04:01 AM - 05:00 AM	-	-	-	1	-	1	0.9%
05:01 AM - 06:00 AM	1	2	-	1	-	4	3.6%
06:01 AM - 07:00 AM	1	1	-	-	1	3	2.7%
07:01 AM - 08:00 AM	1	-	-	1	-	2	1.8%
08:01 AM - 09:00 AM	-	-	-	-	-	-	-
09:01 AM - 10:00 AM	-	-	-	1	2	3	2.7%
10:01 AM - 11:00 AM	1	-	-	3	1	5	4.5%
11:01 AM - 12:00 PM	1	1	-	-	2	4	3.6%
12:01 PM - 01:00 PM	2	1	-	-	-	3	2.7%
01:01 PM - 02:00 PM	-	-	2	1	-	3	2.7%
02:01 PM - 03:00 PM	1	2	1	5	2	11	10.0%
03:01 PM - 04:00 PM	1	1	1	1	3	7	6.4%
04:01 PM - 05:00 PM	2	2	2	1	2	9	8.2%
05:01 PM - 06:00 PM	2	1	-	1	-	4	3.6%
06:01 PM - 07:00 PM	1	2	1	1	-	5	4.5%
07:01 PM - 08:00 PM	3	2	3	-	4	12	10.9%
08:01 PM - 09:00 PM	3	-	1	2	1	7	6.4%
09:01 PM - 10:00 PM	1	1	-	-	1	3	2.7%
10:01 PM - 11:00 PM	1	-	-	4	2	7	6.4%
11:01 PM - 12:00 AM	1	-	1	-	2	4	3.6%
Total	25	19	15	27	24	110	100.0%

0 = Hour with highest frequency of fatal crashes

CHART 19: TIME - FIVE YEAR HISTORY

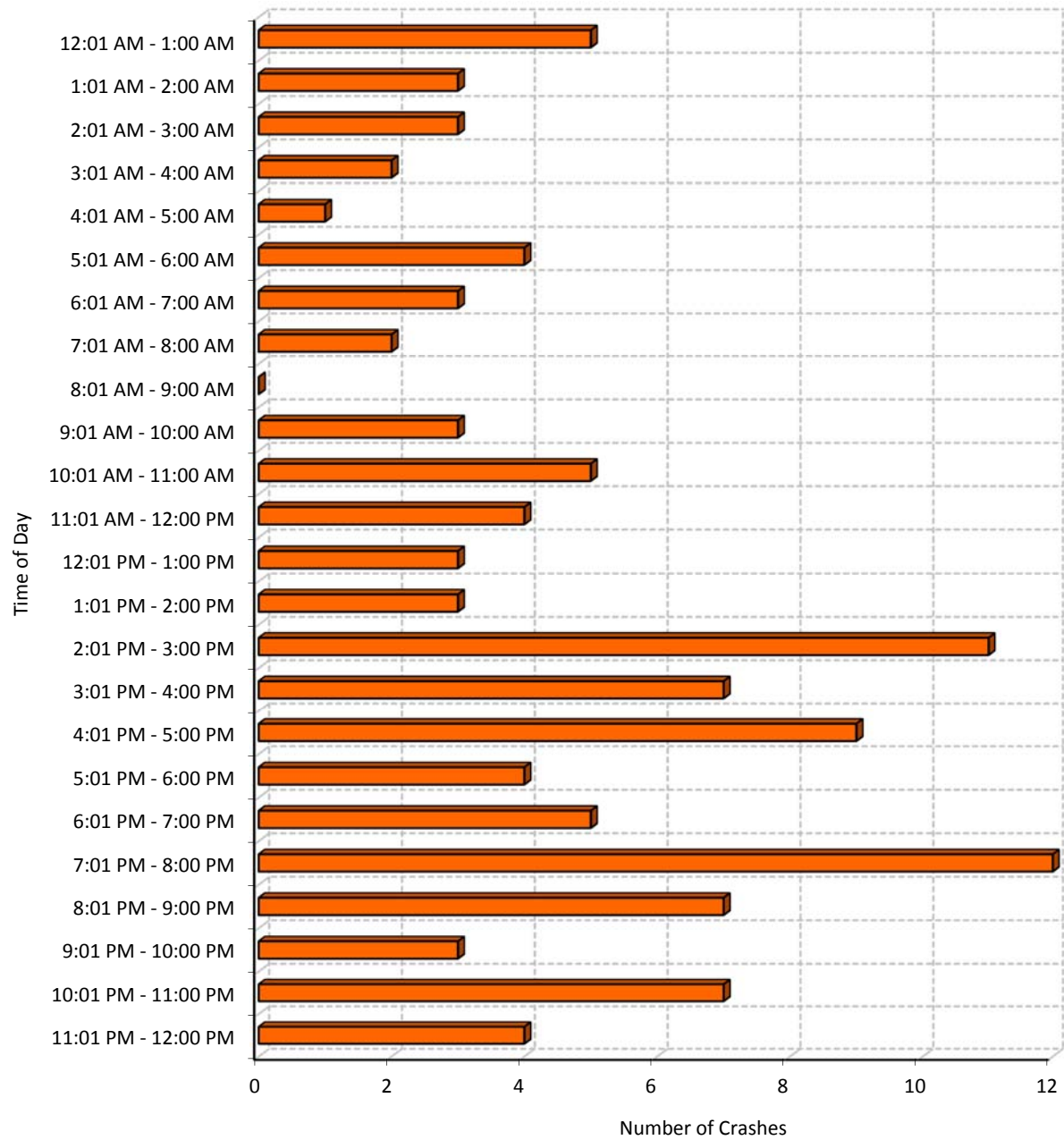


TABLE 16: TIME OF THE DAY and MANNER OF COLLISION

In 2012, 45.8% of all fatal crashes occurred between the hours of 2:01 PM and 8:00 PM.

Hour / Manner	Angle	Head On	Left Turn	Sideswipe Same Direction	Single Vehicle	Pedestrian	Pedalcyclist	Total	% of Total Fatal Crashes
00:01 AM - 01:00 AM	-	-	-	-	1	-	-	1	4.2%
01:01 AM - 02:00 AM	-	-	-	-	-	-	-	-	-
02:01 AM - 03:00 AM	-	-	-	-	-	-	-	-	-
03:01 AM - 04:00 AM	-	-	-	-	-	-	-	-	-
04:01 AM - 05:00 AM	-	-	-	-	-	-	-	-	-
05:01 AM - 06:00 AM	-	-	-	-	-	-	-	-	-
06:01 AM - 07:00 AM	-	-	-	-	-	1	-	1	4.2%
07:01 AM - 08:00 AM	-	-	-	-	-	-	-	-	-
08:01 AM - 09:00 AM	-	-	-	-	-	-	-	-	-
09:01 AM - 10:00 AM	-	-	-	-	1	1	-	2	8.3%
10:01 AM - 11:00 AM	-	-	-	-	①	-	-	1	4.2%
11:01 AM - 12:00 PM	-	-	1	-	-	1	-	2	8.3%
12:01 PM - 01:00 PM	-	-	-	-	-	-	-	-	-
01:01 PM - 02:00 PM	-	-	-	-	-	-	-	-	-
02:01 PM - 03:00 PM	-	-	-	-	-	1	①	2	8.3%
03:01 PM - 04:00 PM	-	-	1	-	②	-	-	3	12.5%
04:01 PM - 05:00 PM	1	1	-	-	-	-	-	2	8.3%
05:01 PM - 06:00 PM	-	-	-	-	-	-	-	-	-
06:01 PM - 07:00 PM	-	-	-	-	-	-	-	-	-
07:01 PM - 08:00 PM	2	-	1	-	-	①	-	4	16.7%
08:01 PM - 09:00 PM	-	-	-	-	-	1	-	1	4.2%
09:01 PM - 10:00 PM	-	-	-	-	-	①	-	1	4.2%
10:01 PM - 11:00 PM	-	-	1	-	-	1	-	2	8.3%
11:01 PM - 12:00 AM	-	-	-	1	-	-	①	2	8.3%
Total	3	1	4	1	5	8	2	24	100.0%

① = Fatal crash possibly involving alcohol or drugs.

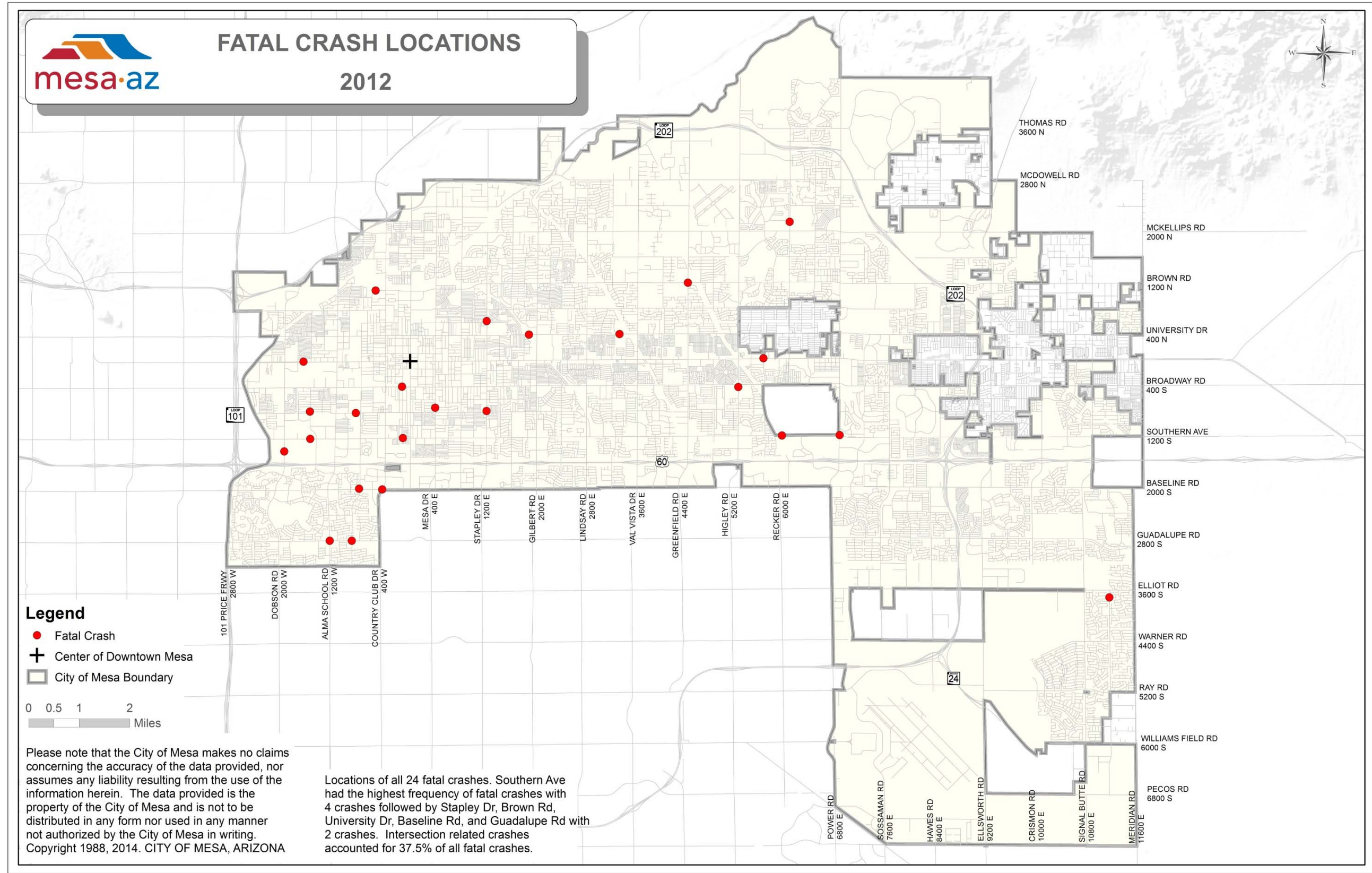
7.0 APPENDIX

7.1 2012 FATAL CRASH LOCATIONS MAP

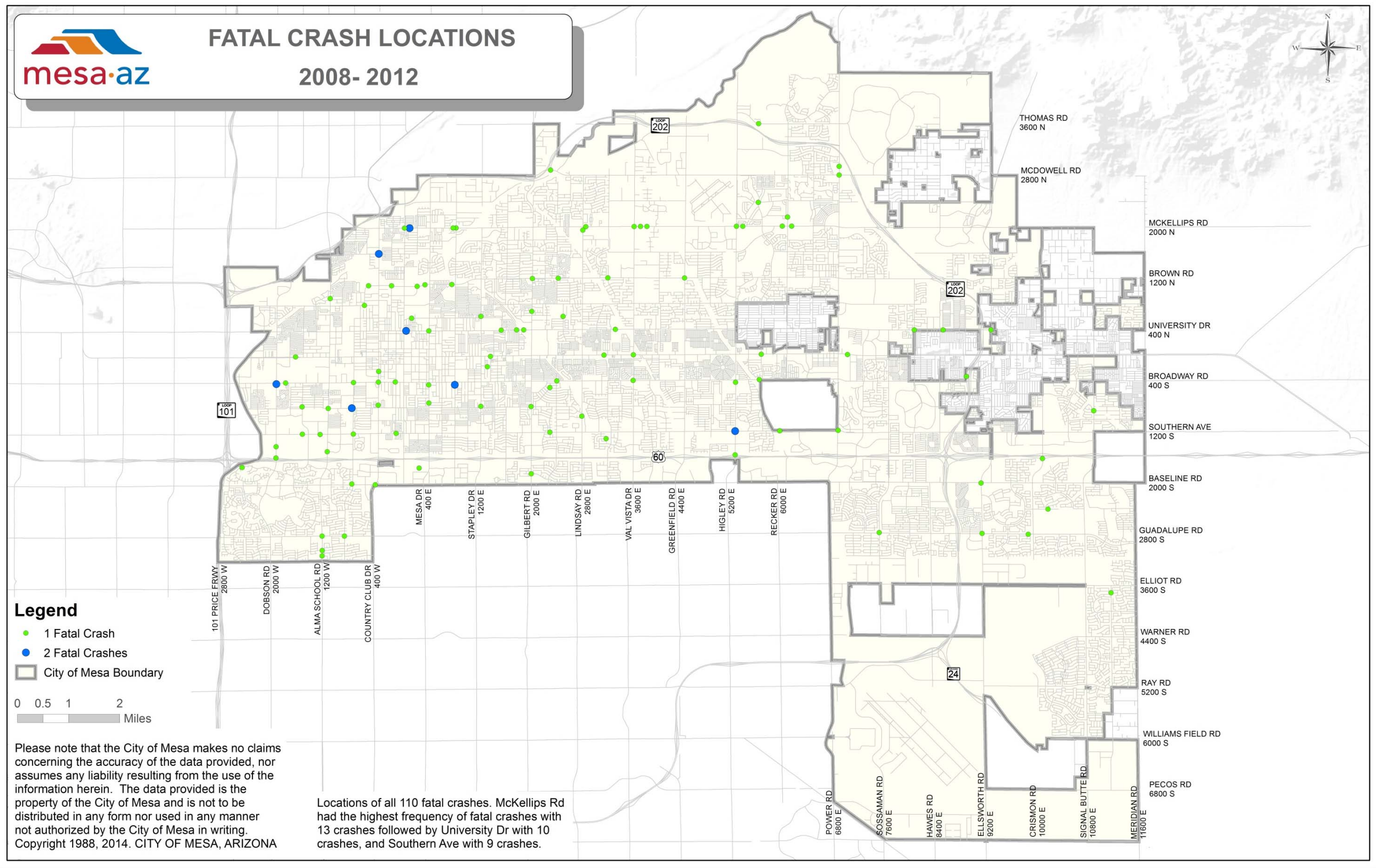
7.2 2008-2012 FATAL CRASH LOCATION MAP

7.3 2012 FATAL CRASH SUMMARY

7.1 2012 FATAL CRASH LOCATIONS MAP



7.2 2008-2012 FATAL CRASH LOCATIONS MAP



7.3 2012 FATAL CRASH SUMMARY

Report Number	Date	Time	Day	Location	Gender/ Age	Seat Belt	Alcohol /Drugs	Comments
20120040248	1/4/2012	9:46 AM	WED	SOUTHERN AVE & LONGMORE	M/92	N/A	-	Single Vehicle. Unit 1 (pedestrian in motorized wheelchair) crossed outside of crosswalk and was struck by Unit 2. Victim: Unit 1 Pedestrian.
20120090470	1/9/2012	3:10 PM	MON	GUADALUPE RD & EXTENSION RD	M/53	N/A	Drugs	Single Vehicle. Unit 1 (motorcycle without helmet) crashed avoiding another vehicle. Victim: Unit 1 Driver.
20120150563	1/15/2012	7:29 PM	SUN	BROWN RD & GREENFIELD RD	M/33	No	-	Angle. Unit 1 disregarded traffic signal and collided with Unit 2. Victim: Unit 1 Driver.
20120210854	1/21/2012	11:09 PM	SAT	GUADALUPE RD & ALMA SCHOOL RD	M/32	N/A	Alcohol	Single Vehicle. Unit 1 (pedalcyclist without helmet) disregarded traffic signal and collided with Unit 2. Victim: Unit 1 pedalcyclist.
20120510784	2/20/2012	10:08 PM	MON	STAPLEY DR & 8 TH AVE	F/47	N/A	-	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedestrian.
20120680484	3/8/2012	2:10 PM	THUR	PUEBLO AVE & LONGMORE	M/0	N/A	-	Single Vehicle. Unit 1 failed to yield right-of-way and struck Unit 2 (pedestrian). Victim: Unit 2 pedestrian.
20120690454	3/9/2012	3:32 PM	FRI	DATE & BROWN RD	M/35	No	Drugs	Single Vehicle. Unit 1 speeding and being pursued by police lost control and ran off road. Victim: Unit 1 driver.
20120760281	3/16/2012	11:06 AM	FRI	SOUTHERN AVE & LEISURE WORLD BLVD	M/72	N/A	-	Left Turn. Unit 1 failed to yield right-of-way and turned left in front of Unit 2 (motorcycle no helmet). Victim: Unit 2 Driver.
20120830646	3/23/2012	7:23 PM	FRI	STAPLEY DR & 6 TH ST	M/76	N/A	Alcohol	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedestrian.
20120870793	3/27/2012	8:00 PM	TUE	BASELINE RD & EXTENSION RD	M/53	No	-	Left Turn. Unit 1 made a left turn in front of Unit 2. No witnesses, violation unknown. Victim: Unit 1 driver
20120870907	3/27/2012	11:08 PM	TUE	MAIN ST & SYCAMORE	M/29	No	-	Sideswipe Same Direction. Unit 1 sideswiped marked PD vehicle in pursuit & lost control. Victim Unit 1 driver.
20120930114	4/2/2012	6:26 AM	MON	POWER RD & SOUTHERN AVE	M/56	N/A	-	Single Vehicle. Unit 1 (pedestrian) disregarded traffic signal and was struck by Unit 2. Victim Unit 1 pedestrian.
20121240848	5/3/2012	10:49 PM	THUR	SOUTHERN AVE & MACDONALD	M/56	N/A	Drugs	Left Turn. Unit 1 made left turn in front of Unit 2 (motorcycle with helmet). Victim: Unit 2 driver.
20121390464	5/18/2012	3:36 PM	FRI	UNIVERSITY DR & GILBERT RD	M/26	N/A	-	Left Turn. Unit 1 made left turn in front of oncoming Unit 2 (motorcycle no helmet). Victim: Unit 2 driver.
20121690383	6/17/2012	2:22 PM	SUN	MESA DR & FRANKLIN AVE	M/57	N/A	Alcohol	Single Vehicle. Unit 1 (pedalcycle no helmet) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedalcyclist.
20122220956	8/9/2012	9:34 PM	THUR	MACDONALD & BROADWAY RD	M/41	N/A	Alcohol	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk and was struck by Unit 2. Victim: Unit 1 pedestrian.
20122320593	8/19/2012	7:37 PM	SUN	UNIVERSITY DR & CRESTON	M/47	Yes	-	Angle. Unit 1 exceeded lawful speed and struck Unit 2. Victim Unit 2 driver.
20122430735	8/30/2012	8:20 PM	THUR	8 TH AVE & EXTENSION RD	F/19	N/A	-	Single Vehicle. Unit 1 (pedestrian) did not use crosswalk, and was struck by Unit 2. Victim: Unit 1 pedestrian.
20122530241	9/9/2012	9:16 AM	SUN	DOBSON RD & SOUTHERN AVE	F/62	Yes	-	Single Vehicle. Unit 1 lost control and left roadway for unknown reasons. Victim: Unit 1 driver.
44385	10/19/2012	12:57 AM	FRI	BASELINE RD & COUNTRY CLUB DR	M/26	No	-	Single Vehicle. Unit 1 made improper turn, lost control, and left roadway. Victim: Unit 1 driver.

Report Number	Date	Time	Day	Location	Gender /Age	Seat Belt	Alcohol /Drugs	Comments
20123090273	11/4/2012	11:00 AM	SUN	MOUNTAIN RD & ELLIOT RD	M/57	Yes	-	Single Vehicle. Unit 1 speeding lost control and left roadway. Victim: Unit 1 driver.
20123340367	11/29/2012	11:36 AM	THUR	56 TH St & MAIN ST	F/69	N/A	-	Single Vehicle. Unit 1 (pedestrian) disregarded traffic signal and was struck by Unit 2. Victim: Unit 1 pedestrian.
20123370502	12/2/2012	4:43 PM	SUN	HIGLEY RD & BROADWAY RD	F/53	N/A	-	Angle. Unit 1 failed to yield right-of-way to Unit 2 (motorcycle no helmet). Victim: Unit 2 passenger.
20123520514	12/17/2012	4:12 PM	MON	RECKER RD & LEONORA ST	M/78	No	-	Head On. Unit 1 crossed into oncoming traffic and struck Unit 2. Victim: Unit 1 driver.